National Stage of PCT/IB03/01414

Amendments to the Claims:

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (Currently Amended) An isolated nucleic acid sequence comprising at least a DR-4 nuclear receptor binding site, wherein said nucleic acid sequence functions as transcriptional enhancer of the 5-aminolevulinic acid synthase gene.
- 2. (Original) The nucleic acid sequence of claim 1 with the proviso that said sequence does not comprise a sequence set forth in Seq. Id. No. 8 to 10.
- 3. (Currently Amended) The nucleic acid sequence of claim 1 or 2, wherein said sequence comprises the sequence set forth in Seq. Id. No. 1.
- 4. (Currently Amended) The nucleic acid sequence of claim 1 or 2, wherein said nucleic acid sequence further comprises a nuclear factor 1 binding site (NF-1) and/or a DR-5 nuclear receptor binding site.
- 5. (Currently Amended) The nucleic acid sequence of anyone of claims 1 to 4 claim 1, wherein said nucleic acid sequence mediates chemical compound induced transcriptional activation.
- 6. (Currently Amended) The nucleic acid sequence of claim 4 claim 5, wherein said chemical compound is a candidate compound for therapeutical use or a drug.
- 7. (Currently Amended)The nucleic acid sequence of anyone of claims claim 1, 2 and 4-6, wherein said sequence comprises a sequence selected from the group consisting of Seq. Id. No. 2 7 Nos. 2 to 6 and Seq. Id. No. 7.

National Stage of PCT/IB03/01414

- 8. (Currently Amended) A genetic construct comprising a nucleic acid sequence of anyone of claims 1-7 claim 1, wherein said nucleic acid is operably linked to a nucleic acid encoding a reporter molecule.
- 9. (Original) The genetic construct of claim 8, wherein said reporter molecule has an enzymatic activity.
- 10. (Original) The genetic construct of claim 9, wherein said reporter molecule activity can be detected by colorimetry, radioactivity, fluorescence or chemiluminiscence.
- 11. (Currently Amended) The genetic construct of anyone of claims 8-10 claim 8, wherein said reporter molecule is selected from the group consisting of luciferase, beta-galactosidase, chloramphenicol acetyltransferase, alkaline phosphatase and green fluorescent protein.
- 12. (Currently Amended) A method for testing compounds for modulation of heme and/or P 450 cytochromes synthesis comprising contacting suitable cells comprising a genetic construct according to claims 8-11 claim 8 with a test compound and detecting enhanced or repressed expression and/or transcription of the nucleic acid sequence encoding the reporter gene.
- 13. (Original) The method of claim 12, wherein said compound is a candidate drug for therapeutical use or a drug.
- 14. (Currently Amended) The method of claim 12 or 13, wherein enhanced expression of the nucleic acid sequence encoding the reporter gene is detected by a colorimetry, fluorescence, radioactivity or chemiluminiscence.
- 15. (Currently Amended) The method of anyone of claims 12-14 claim 12, wherein enhanced transcription of the nucleic acid encoding the reporter gene is detected by quantitative PCR.

National Stage of PCT/IB03/01414

- 16. (Currently Amended) The method of anyone of claims 12 to 15 claim 12, wherein said cells are Leghorn Male Hepatoma (LMH) cells, other hepatoma cells, monkey kidney cells (CV-1, COS-1) or human kidney cells.
- 17. (Canceled)
- 18. (Canceled)
- 19. (New) An isolated nucleic acid sequence comprising at least a DR-4 nuclear receptor binding site, wherein said nucleic acid sequence functions as transcriptional enhancer upon addition of a compound that induces a 5-aminolevulinic acid synthase gene.
- 20. (New) A method for testing at least one testing compound as a modulator of heme and/or P450 cytochromes synthesis comprising:

providing an expression system comprising the isolated nucleic acid sequence of claim 19,

adding said at least one testing compound, and

ascertaining modulation of expression levels in said expression system, wherein said modulation is mediated by said nucleic acid sequence.

- 21. (New) The method of claim 20, wherein said isolated nucleic acid sequence is Seq. Id. No. 8, Seq. Id. No. 9, Seq. Id. No. 10 or Seq. Id. No. 39.
- 22. (New) The method of claim 20, wherein said isolated nucleic acid is operably linked to a nucleic acid encoding a reporter molecule.